

What is claimed is:

(Claim 1) A smart airbag monitored by a vehicle restraint control module comprising:

at least one state sensor generating an airbag state signal; and
a smart airbag fault circuit coupled to the at least one state sensor and comprising:

a plurality of state devices, each of which having at least one characteristic that is indicative of a state of the smart airbag, said plurality of state devices configured to be monitored by the vehicle restraint control module; and
a smart airbag state monitor, separate from the vehicle restraint control module, coupled to said plurality of state devices, and altering said state in response to said airbag state signal.

(Claim 2) A smart airbag as in claim 1 further comprising a plurality of trigger devices configured to be monitored by said vehicle restraint control module.

(Claim 3) A smart airbag as in claim 2 wherein said plurality of trigger devices comprise at least one of said plurality of state devices.

(Claim 4) A smart airbag as in claim 1 wherein said plurality of state devices comprise a plurality of resistive state indicators.

(Claim 5) A smart airbag as in claim 1 further comprising a switch coupled to said plurality of state devices, said state monitor altering state of said switch in response to said airbag state signal.

(Claim 6) A smart airbag as in claim 5 wherein said switch comprises a first position associated with a first state device and a second position associated with a second state device.

(Claim 7) A smart airbag as in claim 1 wherein at least one of said plurality of state devices is a trigger device.

(Claim 8) A restraint control system comprising:

an airbag module internal sensor generating an airbag state signal;

a plurality of airbag state devices coupled to and having characteristics indicative of a state of an airbag;

a restraint control module monitoring said plurality of state devices; and

an airbag state monitor separate from said restraint control module, coupled to said plurality of airbag state devices, and altering said state in response to said airbag state signal.

(Claim 9) A system as in claim 8 further comprising a plurality of trigger devices coupled to said airbag and comprising at least one of said plurality of state devices.

(Claim 10) A system as in claim 9 wherein said plurality of trigger devices are resistive.

(Claim 11) A system as in claim 9 wherein said plurality of trigger devices comprise at least one resistor.

(Claim 12) A system as in claim 9 wherein each of at least two of said plurality of trigger devices have a resistance of approximately 2 Ohms.

(Claim 13) A system as in claim 9 wherein said plurality of trigger devices comprise:

a first trigger device with a first resistance; and

a second trigger device with a second resistance that is different than said first resistance.

(Claim 14) A system as in claim 8 wherein said state monitor in altering state alters a coupling between said plurality of state devices and said restraint control module.

(Claim 15) A system as in claim 8 wherein said restraint control module generates a fault signal in response to said state.

(Claim 16) A system as in claim 8 further comprising a switch coupled to said plurality of state devices, said state monitor alters status of said switch in response to said airbag state signal.

(Claim 17) A system as in claim 8 wherein said airbag comprises said plurality of state devices.

(Claim 18) A method of indicating a state of an airbag to an airbag external restraint control module comprising:

monitoring the state of the airbag;

generating an airbag state signal via at least one air bag module internal sensor; and

providing an airbag state indication indicative of the state of the airbag to the airbag external restraint control module;

altering said airbag state indication via trigger devices of an airbag module internal state circuit in response to said airbag state signal.

(Claim 19) A method as in claim 18 further comprising generating an airbag fault signal in response to said indicative state.

(Claim 20) A method as in claim 18 wherein altering indicative state of the airbag comprises switching between a first state indicative device and a second state indicative device.